

Before addressing the prior art rejections, it may be helpful to explain the claimed invention. The present invention is directed to a method for producing a controlled release device which dispenses a pesticide for a prolonged period of time at a desired rate. One problem in making devices for dispensing pesticides is that when the pesticide is incorporated into a molten polymer, some of the pesticide vaporizes and is lost to the atmosphere. Additionally, most pesticides when placed in a hydrophobic, thermoplastic matrix release at a rate which is too fast. This fast release rate causes two problems. First, the pesticide accumulates on the surface of the device. Second, the pesticide is exhausted from the device before the desired time frame. The present invention, recognized and solved these problems in making controlled release devices from hydrophobic thermoplastic polymers. Applicants discovered that when the pesticide is bound to a carrier prior to the pesticide being incorporated into the polymeric matrix, the loss of the pesticide during processing is significantly reduced and the release rates of the pesticide are reduced to the desired levels. The advantages of the claimed invention are shown in the enclosed Declaration of Dr. Van Voris. As set forth in the Declaration based on experimental evidence, the loss of pesticide during processing is significantly reduced by binding the pesticide to the carrier before incorporating the pesticide in the polymers. Similarly, the data reported in the Declaration show that the release rates are significantly reduced when the pesticide is bound to the carrier prior to being incorporated into the polymers. None of the references disclose, suggest or imply that by binding the pesticide to a carrier before incorporating the pesticide into the polymer, the loss of the pesticide in making the device is significantly reduced and the release rates from the controlled release are significantly slower, so as to be within acceptable ranges. The pending claims of the present application have been amended to clarify these features of the present invention.

The claimed invention is patentable over the references applied by the Examiner. Specifically, U.S. patent No. 5,139,566 ("Zimmerman") does not disclose the step of incorporating a liquid pesticide onto particles of a carrier as called for in step (a) of claim 1. The *Zimmerman* patent also does not mix pesticide-containing carrier particles with a polymer, as called for by step b) of claim 1. Accordingly, withdrawal of the rejection of claims 1, 2, 6-13, 16, 19, 20, 22-24 and 26-28 under 35 U.S.C. § 102 (b) is respectfully requested.


Similarly, Chemical Web, the *Fahlstrom* patent, the *Zimmerman* patent and *Sjorn* do not disclose mixing the pesticide with the carrier to bind or sorb the pesticide onto the carrier in order to obtain the advantages set forth in the Declaration of Dr. Van Voris. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 1-4, 6-16 and 18-28 under 35 U.S.C. § 103(a).

The Commissioner is hereby authorized to charge any fees under 37 C.F.R. § § 1.16 to 1.21 which may be required for any reason relating to this document, or credit any overpayment to Arnold White & Durkee Deposit Account No. 01-2508/BTEL:025.

Please forward any reply to this communication directly to our Houston office for docketing purposes. The mailing address is P.O. Box 4433, Houston, Texas 77210-4433; the physical address for courier packages is 750 Bering Drive, Houston, Texas, 77057, and the Houston facsimile number is 713.787.1440.

Respectfully submitted,

March 15, 1999


S. Z. Szczepanski
Reg. No. 27,957
Attorney for the Applicant(s)

Arnold White & Durkee
P.O. Box 4433
Houston, Texas 77210
(312) 744-0090

B